

I Claim:

28. A luminaire suitable for connection to and being powered from a high-frequency power source;

the luminaire having a ballasted-socket assembly;

said ballasted-socket assembly having a high-frequency input terminal #1, a high-frequency input terminal #2, a ballasting circuit, a lamp socket, interconnecting wiring, and an enclosure;

said enclosure completely enclosing the ballasting circuit, and the interconnecting wiring;

said ballasted-socket assembly also provided with a channel;

the high-frequency input terminals being located within said channel;

the channel being of such a design as to receive and connect to a high-frequency cord comprising two parallel conductors encased within and separated from each other by a common insulating sheath;

the high-frequency input terminal #1 making connection to one of the two parallel conductors;

the high-frequency input terminal #2 making connection to the second of the two parallel conductors.

29. The ballasted-socket assembly described in claim 28, wherein said ballasted-socket assembly is provided with a base for mounting;

said base having a recessed channel;

said recessed channel being accessible after the ballasted-socket assembly is mounted in place; and

said ballasted-socket assembly being adapted to be mounted in place prior to being connected to the high-frequency output cord.

30. The luminaire described in claim 28, wherein said ballasted-socket assembly is provided with a mounting base;

said mounting base having a recessed channel;

said recessed channel adapted for receiving the high-frequency output cord; and

said ballasted-socket assembly being adapted to be mounted in place after receiving the high-frequency output cord.

31. The luminaire described in claim 28, wherein the ballasted-socket assembly is provided with a socket capable of receiving and supporting a long single-ended lamp;

said luminaire requiring a support bracket to properly support the long single-ended lamp;
said support bracket being provided as an integral part of the ballasted-socket assembly.

32. The luminaire described in claim 28, wherein the ballasted-socket assembly includes two
lamp sockets;

the lamp sockets each having a receptacle capable of receiving a single-ended lamp;

said single-ended lamp being a gas-discharge lamp;

said receptacles facing opposing directions and located on substantially the same axis.

33. The luminaire described in claim 28, wherein the ballasted-socket assembly is adapted to
power a compact fluorescent lamp.

34. The luminaire described in claim 28, wherein the ballasted-socket assembly is provided with
a socket capable of receiving and supporting a long single-ended lamp;

said luminaire requiring a support bracket to properly support the long single-ended lamp;

said support bracket being provided as a separate piece; said support bracket mounted to the

bottom of the shelf or cabinet at the time of installation at a point along the length of the
long single-ended lamp;

said support bracket being provided with a recess capable of allowing said interconnecting cord
to pass through.

35. A ballasted-socket assembly for installation under a cabinet or shelf;

said ballasted-socket assembly including a pair of high-frequency input terminals, a high-

frequency ballasting circuit, a lamp socket for a single-ended lamp, interconnecting
wiring between the high-frequency input terminals and the high-frequency ballasting
circuit, interconnecting wiring between the high-frequency ballasting circuit and the lamp
socket for a single-ended lamp, and an enclosure;

said enclosure completely enclosing the high-frequency ballasting circuitry, the interconnecting
wiring between the high-frequency input terminals and the high-frequency ballasting
circuit, and the interconnecting wiring between the high-frequency ballasting circuit and
the lamp socket for a single-ended lamp; and

said enclosure not enclosing a single-ended lamp.

36. The ballasted-socket assembly described in claim 35 wherein, said enclosure also includes a
mounting base;

said mounting base having holes capable of receiving screws whereby the ballasted-socket assembly is mounted directly to the underside of a cabinet or shelf.

37. The ballasted-socket assembly described in claim 35, wherein an optional reflector is used with the ballasted-socket assembly;

said reflector being installed between the ballasted-socket assembly and the underside of the cabinet or shelf; and

a lamp being inserted into the ballasted-socket assembly whereby said lamp and said ballasted-socket assembly are located on the same side of the reflector.

38. An arrangement comprising: a pair of input terminals, a ballasting circuit, a socket with output terminals that is capable of receiving, supporting and making electrical connection to a single-ended lamp, interconnecting wiring between the input terminals and the ballasting circuitry, interconnecting wiring between the ballasting circuitry and the output terminals of the socket and an enclosure;

the input to the ballasting circuit being connected to the pair of input terminals;

the output of the ballasting circuit being connected to the output terminals within the socket;

the ballasting circuit being capable of properly igniting and powering a gas discharge lamp when provided with a high-frequency voltage on the pair of input terminals;

the enclosure completely encapsulating the ballasting circuitry, the interconnecting wiring

between the input terminals and the ballasting circuitry, the interconnecting wiring

between the ballasting circuitry and the output terminals of the socket, and the portion of

the output terminals to which the ballasting circuitry connects; and

said enclosure not enclosing a single-ended lamp.

39. The arrangement described in 38, wherein the pair of input terminals makes connection to a source of high-frequency voltage by way of an insulation-displacement connector;

an insulation-displacement connector being a connector capable of making an insulation-displacement type connection;

said arrangement being further characterized in that the arrangement is provided with a single insulation-displacement connector.

40. The arrangement described in 38 wherein the arrangement is provided with a mounting base; said mounting base including two recessed channels oriented at right angles with respect to each other;

said mounting base also including two high-frequency input terminals positioned at the intersection of the two channels;

said high-frequency input terminals being suitable for making an insulation displacement connection to a high-frequency output cord;

the arrangement being designed so that the mounting base will make proper connection to the high-frequency output cord in any one of four possible orientations.

41. A high-frequency under-cabinet lighting system comprising: a high-frequency power source, an interconnecting cable, and multiple luminaires;

the high-frequency power source being connected to and powered from a standard utility power line and having a high-frequency power output;

the interconnecting cable being connected to said high-frequency power output;

the interconnecting cable being supplied from a manufacturing facility with no luminaires connected thereto; and

the system further characterized in that the system is installed by an installer;

during installation, luminaires are connected to a single interconnecting cable at multiple points along the interconnecting cable using an insulation-displacement connection;

the locations of the luminaires being determined by the installer.

42. A method of providing under-cabinet lighting, comprising the steps of:

- a. mounting one or more ballasted-socket assemblies to the under side of a cabinet or a shelf,
- b. passing a high-frequency output cord through each ballasted-socket assemblies' recessed channel,
- c. positioning a slide-on cover such that its' cover tabs engage with a set of base tabs,
- d. sliding the slide-on cover forward,
- e. forcing the high-frequency input terminals to pierce the insulation of the high-frequency output cord and make electrical contact with an internal conductor.

43. The process described in claim 42, additionally characterized by including the step of inserting a gas-discharge lamp into the ballasted-socket assembly.

44. The process described in claim 42, additionally characterized by including the step of inserting a compact fluorescent lamp into the ballasted-socket assembly.

45. The process described in claim 42, whereby the ballasted-socket assembly includes a socket with an opening suitable for receiving a gas-discharge lamp;

the opening positioned on the ballasted-socket assembly such that when the ballasted-socket assembly is mounted beneath a cabinet or shelf the opening is facing in a downward position.

46. The process described in claim 42, whereby the ballasted-socket assembly includes a socket with an opening suitable for receiving a gas-discharge lamp;

the opening positioned on the ballasted-socket assembly such that when the ballasted-socket assembly is mounted beneath a cabinet or shelf the opening is facing to a side.

47. The process described in claim 42, whereby the ballasted-socket assembly includes two sockets each having an opening suitable for receiving a gas-discharge lamp;

the opening positioned on the ballasted-socket assembly such that when the ballasted-socket assembly is mounted beneath a cabinet or shelf, the openings are facing opposite sides and neither socket is facing in a downward direction.

48. A method of providing under-cabinet lighting, comprising the steps of:

passing a high-frequency output cord along the bottom of a cabinet or a shelf,

placing a ballasted-socket assembly over the high-frequency output cord,

mounting the ballasted-socket assemblies to the under side of the cabinet or shelf.

49. The process described in claim 48, additionally characterized by including the step of inserting a gas-discharge lamp into the ballasted-socket assembly.

50. The process described in claim 48, additionally characterized by including the step of inserting a compact fluorescent lamp into the ballasted-socket assembly.

51. The process described in claim 48, whereby the ballasted-socket assembly includes a socket with an opening suitable for receiving a gas-discharge lamp;

the opening positioned on the ballasted-socket assembly such that when the ballasted-socket assembly is mounted beneath a cabinet or shelf the opening is facing in a downward position.

52. The process described in claim 48, whereby the ballasted-socket assembly includes a socket with an opening suitable for receiving a gas-discharge lamp;

the opening positioned on the ballasted-socket assembly such that when the ballasted-socket assembly is mounted beneath a cabinet or shelf the opening is facing to a side.

53. The process described in claim 48, whereby the ballasted-socket assembly includes two sockets each having an opening suitable for receiving a gas-discharge lamp;

the opening positioned on the ballasted-socket assembly such that when the ballasted-socket assembly is mounted beneath a cabinet or shelf, the openings are facing opposite sides and neither socket is facing in a downward direction.

54. A method of providing lighting system, comprising the steps of:

- a. mounting one or more ballasted-socket assemblies,
- b. passing a high-frequency output cord through the recessed channel of each ballasted-socket assembly,
- c. actuating a mechanism that will force the conductors of a high-frequency output cord to make electrical contact with the input terminals of the ballasted-socket assembly,
- d. inserting a gas-discharge lamp into the ballasted-socket assembly.